Applicants hereby amend the paragraph on page 20, beginning on line 13 and continuing on page 21 of the specification as follows:

In another aspect of the invention, a circuit processes an input audio signal received at an input of the circuit and provides a processed audio signal at an output of the circuit. The circuit includes a first adder having first and second inputs and an output at which the processed audio signal is provided. A first conductive path connects the input audio signal circuit input to the first input of the first adder, the first conductive path being constructed and arranged to deliver the received input audio signal unaltered to the first adder. A second conductive path connects the circuit input to the second input of the first adder after the input audio signal undergoes processing in the second conductive path. The second conductive path includes a first bandpass filter having an input connected to the input audio signal at the circuit input. A multiplier has a first input connected to the output of the first bandpass filter. A variable amplifier, having an input connected to the multiplier output, amplifies the multiplier output signal in accordance with an amplification factor presented at a control input of the variable amplifier. A first nonlinear circuit has an input connected to the amplifier output, the nonlinear circuit limited~~ing~~ to a predetermined value of the amplitude of the amplifier output signal. A second bandpass filter has an input connected to the nonlinear circuit output and an output connected to the second input of the first adder and defining the output of the second conductive path. A first function generator has an input connected to a control output of the first nonlinear circuit, and an output connected to the second input of the multiplier.

Applicants hereby amend the paragraph on page 24, beginning on line 4 of the specification as follows:

A schematic block diagram of another embodiment of the audio processing circuit of the present invention, referred to as the audio processing circuit 200, is illustrated in FIG. 2. The audio processing circuit 200 of FIG. 2 is described in conjunction with the embodiment of the audio processing circuit 100 of FIG. 1.

Applicants hereby amend the paragraph on page 26, beginning on line 1 of the specification as follows:

A further embodiment of the audio processing circuit of the present invention, referred to as the audio processing circuit 300, is illustrated in FIG. 3. The audio processing circuit 300 is described in conjunction with the embodiments of the audio processing circuits 100 and 200 of FIGs. 1 and 2, respectively.

Applicants hereby amend the paragraph on page 27, beginning on line 4 of the specification as follows:

A still further embodiment of the audio processing circuit of the present invention, referred to as the audio processing circuit 400, is illustrated in FIG. 4. The audio processing circuit 400 is described in conjunction with the embodiments of the audio processing circuits 100, 200 and 300 of FIGs. 1, 2 and 3, respectively. In this exemplary illustration of the audio processing circuit 400, one embodiment of a detailed implementation of the nonlinear circuit 308 of FIG. 3 is illustrated. This illustrative embodiment is referred to in FIG. 4 as nonlinear circuit 408. The nonlinear circuit 408 includes embodiments of the second nonlinear circuit 302 of FIG. 3, still referred to as the second nonlinear circuit 302 herein, and the second function generator 304 of FIG. 3, still referred to herein as the second function generator 304.

Applicants hereby amend the paragraph on page 29, beginning on line 6 of the specification as follows:

A significant advantage of the invention is that the nonlinear operation of the nonlinear circuit 408, and the function of the function generator 110, determines the form of the harmonics as well as the time of their generation. It should be understood by those of ordinary skill in the art that adjustments in the nonlinear operation of the nonlinear circuit 108, 208, 308, 408 and of the function of the function generator 110, 210, 310, the invention can easily be adapted to loudspeakers with different characteristics, so that optimum compensation of the frequency response of a loudspeaker is always achieved. Because the amplitude of the audio signal is limited to a specified value by the nonlinear circuit, the inventive circuit reacts much faster than the prior art to rising amplitudes of the audio signal.